What is claimed is:

1. A method of processing an image, comprising:

determining characteristics of a plurality of image processing elements at a time of a specified image processing result; and

establishing a subsequent calculation as being complete when said characteristics exist in a subsequent calculation.

2. A method as in claim 1 wherein said characteristics include sign bits of said image processing elements.

3. A method as in claim 2 wherein said image processing units are sum of absolute difference units.

4. A method as in claim 1 wherein said characteristics comprise states of groups of said image processing elements.

5. A method as in claim 4 wherein said characteristics comprise states of groups of said image processing elements.

6. A method of calculating a relationship between two images, comprising:

obtaining images;

monitoring matching characteristics between a source image and a search image at a first time, to determine a minimum distortion between said images;

determining conditions of a plurality of calculating units at a first time when minimum distortion between said images is found;

at a subsequent time, monitoring said conditions, and determining if states of said calculating units is the same as said states found at said first time; and

establishing a minimum distortion based on said states being the same.

7. A method as in claim 6 wherein said conditions comprise sign bits of accumulating units.

8. A method as in claim 7 further comprising a combinatorial logic unit which detects sign bits of the accumulating units.

9. A method as in claim 7 further comprising determining if a block history model needs update, using said previous conditions if not, and updating said conditions if so.

10. A method as in claim 6, wherein said obtaining uses a video camera.

11. A method as in claim 9, wherein said determining comprises determining if a specified time has elapsed since a previous update.

12. A method as in claim 6, wherein said states include groupings of states representing specified characteristics.

13. A method, comprising:

determining a plurality of different states of different calculating units;

determining, from said states, groupings of possible states, which groupings represent different probabilistic conditions of the images;

determining a first state at a first time at which a calculation indicates minimum distortion between two images; and

using said first state to indicate an early exit from calculation at a second time.

14. A method as in claim 13, wherein said using comprises determining if a current state is the same as said first state.

15. A method as in claim 13, wherein said groupings comprise groupings of sign bits of said calculating units.

16. A method as in claim 13, further comprising using said calculating to determine information for an MPEG coding.

17. An apparatus, comprising:

a plurality of image processing elements;

a circuit that stores first states of said image processing elements at a time of a specified image processing result; and

an early exit circuit that determines a completion of a calculation based on comparing current states with said first states.

18. An apparatus as in claim 17, wherein said characteristics include arithmetic states of said image processing elements.

19. An apparatus as in claim 18, wherein said image processing elements include accumulators therein, and said characteristics include sign bits of said accumulators.

20. An apparatus as in claim 17, further comprising a video obtaining element.

21. An apparatus as in claim 20, wherein said video obtaining element is a video camera.

22. An apparatus as in claim 17, wherein said characteristics comprise states of groups of said image processing elements.